

# WEEDY ELEMENTS IN THE FLORA OF CHANDRAPUR DISTRICT, MAHARASHTRA STATE<sup>1</sup>

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In the present paper, weedy elements of Chandrapur district are presented which are classified into different categories depending on their habitat and nature.

## INTRODUCTION

During the plant exploration of Chandrapur district, most of the weeds occurring in the area were found harmful for the growth of various crops and fruit trees in the district. A lot of man-power and valuable time is wasted in weeding out such elements. Hence it was thought worthwhile to record the various weeds occurring in different habitats of the district for the benefit of Agricultural Scientists who may experiment with weedicides.

Chandrapur district of Maharashtra State, has an area of about 24, 118 sq. km. of which 14.36 lakh hectares, i.e. about 60% of geographical area is under forest and 5.42 lakh hectares, i.e. 22% of the total area is cultivable land. The area under irrigation is 18% of the total cultivable area. The main crops of the district are paddy and rabi jowar. In 1961-62 the district had 159086-159581 hectares under paddy while jowar occupied 30.02% (1961 census) of the gross cropped area of the district as against 30.95% for the State. Some other crops like wheat, cotton and maize are also common.

The important pulses in the district include horsegram, gram, blackgram and greengram. These and other minor pulses together occupied 14.67% of the gross cropped area during the period from 1957-58 to 1959-60 in the district as against 10.69% of the State. Under

narcotics in 1963-64 the tobacco crop occupied only 261.022 hectares in the tahsil Gadchiroli and Chandrapur tahsils also have large area under tobacco.

In addition, Linseed and *Sesamum* are the most important oil seeds that are produced in the district and all the oilseeds together occupy 12.35% of the gross cropped area of the district as against 8.18% for the State between 1957-58 and 1959-60. Besides there are several vegetable crop fields throughout the district. Brinjal and other green vegetables in 1961-62 occupied an area of 337.103 hectares in the district. They are followed by onion and sweet-potatoes etc.

## MATERIAL AND METHODS

While investigating the plant wealth of Chandrapur district, some efforts were made to identify the weeds in the field and the relevant data like their habitat, local name, flowering, fruiting period etc. were obtained along with the sample specimens which were labelled and housed in the herbarium of Western Circle (BSI), Poona.

## RESULTS AND DISCUSSION

As weeds are a menace to the cultivated fields an attempt has been made to keep a record of weedy elements of the district which are classified into various heads like crop-weeds, weeds of vegetable gardens, gardens and orchards, weeds of road-sides, rail-track sides, wastelands, aquatic and parasities. How-

<sup>1</sup> Accepted December 1978.

<sup>2</sup> Botanical Survey of India, Pune-1.

ever the common weeds which occur everywhere are not repeated under different heads. The weeds recorded amounts to nearly 200 species belonging to 150 genera and about 60 families. The following are the ten dominant families recorded in the area:

Fabaceae, Asteraceae, Poaceae, Cyperaceae, Euphorbiaceae, Amaranthaceae, Convolvulaceae, Acanthaceae, Scrophulariaceae, and Malvaceae.

#### Weeds of crop fields :

In the cultivated fields, weeds observed in paddy, wheat, Jower and cotton etc. were:

DOMINANT: *Anagallis arvensis* Linn., *Borneria articularis* (Linn.) F. N. Will., *Caesulia axillaris* Roxb., *Celosia argentea* Linn., *Cyperus iria* Linn., *C. rotundus* Linn., *Desmodium triflorum* (Linn.) DC., *Emelia sonchifolia* (Linn.) DC., *Eragrostis uniolooides* (Retz.) Nees, *Euphorbia hirta* Linn., *Indigofera linifolia* Retz., *Ischaemum indicum* (Houtt.) Merr., *Merremia tridentata* (Linn.) Hall. f., *Mollugo pentaphylla* Linn., *Murdannia spirata* (Linn.) Brenan, *Oryza rufipogon* Griff., *Polygala erioptera* DC., *Polygonum plebeium* R. Br., *Portulaca oleracea* Linn., *Sorghum halpense* (Linn.) Pers., *Sphaeranthus indicus* Linn., *Striga angustifolia* (D. Don) Saldanha, *Tribulus terrestris* Linn.

FREQUENT: *Ageratum conyzoides* Linn., *Amberboa ramosa* (Roxb.) Jafri, *Digera muricata* (Linn.) Mart., *Enicostema hyssopifolium* (Willd.) C. B. Roy, *Eragrostis ciliaris* (Linn.) R.Br., *Eriocaulon diana*e Fyson, *E. quinqueangularis* Linn., *Hedyotis nudicaulis* Wt. & Arn., *Indigofera cordifolia* Heyne, *Oxalis corniculata* Linn., *Polygala chinensis* Linn., *Setaria glauca* (Linn.) P. Beauv.

UNCOMMON: *Ammannia baccifera* Linn., *A. multiflora* Roxb., *Alternanthera sessilis* (Linn.) R. Br. ex DC., *Bacopa monnieri* (Linn.) Pennell, *Biophytum sensitivum* DC.,

*Cassia mimosoides* Linn., *C. pumila* Lamk., *Corchorus aestuans* Linn., *Cyanotis cristata* (Linn.) D. Don, *Cyperus difformis* Linn., *Digitaria adscendens* (H.B.K.) Henr., *Echinochloa colonum* (Linn.) Lamk., *Eleusine indica* (Linn.) Gaertn., *Fimbristylis littoralis* Gaud., *Melochia corchorifolia* Linn., *Paspalum scrobiculatum* Linn., *Physalis minima* Linn., *Setaria pallida-fusca* (Sch.) Stapf et C. E. Hubb., *S. tomentosa* (Roxb.) Kunth., *Vernonia cinerea* (Linn.) Less.

RARE: *Goniocaulon glabrum* Cass., *Solanum nigrum* Linn.

The weeds like *Centaurium centuroides* (Roxb.) Rolla Rao et Hem., *Hoppea dichotoma* Willd., *Hydrolea zeylanica* (Linn.) Vahl, *Lindernia ciliata* (Colsm.) Pennell were often observed growing only in the harvested fields.

#### Weeds of vegetable crop fields :

DOMINANT: *Cleome viscosa* Linn., *Gonogyne hirta* (Willd.) Ali, *Trianthema portulacastrum* Linn.

FREQUENT: *Atylosia scarabaeoides* (Linn.) Benth., *Bergia ammannioides* Roxb. ex Roth, *Evolvulus alsinoides* Linn., *Grangea maderaspatana* (Linn.) Poir., *Lobelia alsinoides* Lamk., *Malachra capitata* (Linn.) Linn., *Rhynchosia minima* DC., *Solanum surattense* Burm. f., *Zornia gibbosa* Span.

RARE: *Cyperus michelianus* (Linn.) Link. ssp. *pygmaeus* (Rottb.) Aschers & Greabn., *Helioropium indicum* Linn., *Indigofera astragalina* DC., *I. glandulosa* Roxb. ex Willd., *Launaea fallax* (Jaub. & Spach) Kuntze, *Rorippa indica* (Linn.) Hiern., *Trichodesma indicum* R. Br., var. *amplexicaule* Cooke; *T. sedgewickianum* Banerjee.

#### Weeds of gardens and orchards :

DOMINANT: *Alysicarpus vaginalis* (Linn.) DC., *A. monilifer* (Linn.) DC., *Barleria prionitis* Linn., *Boerhavia diffusa* Linn., *Bidens*

*baternata* (Lam.) Merr. et Sherff, *Borreria pusilla* (Wall.) DC., *Chenopodium album* Linn., *Cleome gynandra* Linn., *Commelina benghalensis* Linn., *Euphorbia geniculata* Ortega, *E. thymifolia* Linn., *Gomphrena celosioides* Mart., *Lagascea mollis* Cav.

FREQUENT: *Crotalaria linifolia* Linn. f., *C. albida* Heyne ex Roth, *C. medicaginea* Lamak., *Corchorus fascicularis* Lamk., *Cardiospermum halicacabum* Linn., *Amaranthus spinosus* Linn., *Argemone mexicana* Linn., *Cassia tora* Linn., *Chrozophora prostrata* Dalz., *Croton bonplandianum* Baill., *Cyperus pumilus* Linn., *Dactyloctenium aegyptium* (Linn.) P. Beauv. *Datura fastuosa* Linn. var. *alba* Cl., *Eclipta prostrata* (Linn.) Linn., *Glinus lotoides* Linn., *Hibiscus lobatus* (Murr.) O. Ktze, *Hybanthus enneaspermus* (Linn.) F. N. Muell., *Hyptis suaveolens* (Linn.) Poit., *Lantana camara* var. *aculeata* (Linn.) Mold., *Leucas cephalotes* Spreng., *Martynia annua* Linn., *Oldenlandia corymbosa* Linn., *Pavonia odorata* Willd., *P. zeylanica* Cav., *Polycarpon prostratum* (Forsk.) Asch. & Schweinf., *Tephrosia purpurea* Pers., *Tridax procumbens* Linn., *Urena lobata* Linn., *Xanthium strumarium* Linn., and also the weeds like *Abutilon indicum* (Linn.) Sweet, *Acanthospermum hispidum* DC., *Adhatoda vasica* (Linn.) Nees, *Apluda mutica* Linn., *Calotropis gigantea* (Linn.) R. Br., *Cassia occidentalis* Linn., *Coldenia procumbens* Linn., *Dicanthium annulatum* (Forsk.) Stapf, *Dipteracanthus prostratus* (Poir.) Nees, *Echinops echinatus* Roxb., *Indigofera linnaei* Ali, *Ipomoea eriocharpa* R. B., *I. hederifolia* Linn., *I. nil* (Linn.) Roth, *Lepidagathis cristata* Willd., *Leonotis nepetifolia* (Linn.) Ait. f., *Melanocenchris jacquemontii* Jaub. et Spach., *Opuntia elatior* Mill., *Pedaliium murex* Linn., *Pergularia dactyloides* (Forsk.) Chiov., *Peristrophe bicalyculata* (Retz.) Nees, *Phyllanthus asperulatus* Hutch., *P. maderaspatensis* Linn., *Pupalia lappacea* (Linn.) Juss., *Rungia repens* (Linn.) Nees,

*Saccharum spontaneum* Linn., *Scirpus articulatus* Linn., *Scoparia dulcis* Linn., *Sebastiania chameleon* (Linn.) Muell.-Arg., *Sesamum mulayanum* Nair, *Sopubia delphinifolia* (Linn.) G. Don, *Tephrosia hirta* Buch.-Ham., *Triumfetta rhomboidea* Jacq., *Verbascum chinense* (Linn.) Sant.

RARE: *Flaveria trinervia* (Spreng.) C. Mohr., *Parthenium hysterophorus* Linn., *Amischo-phacelus axillaris* (Linn.) Rolla Rao et Kammathy, *A. cucullatus* (Roth) Rolla Rao et Kammathy, *Corchorus capsularis* Linn., *C. olitorious* Linn., *Crotalaria orixensis* Willd., *C. prostrata* Rottl. ex Willd.

#### Aquatic and marshy weeds :

COMMON: *Ceratophyllum demersum* Linn., *Cyperus allulatus* Kern, *Hygrophila auriculata* (Sch.) Heine, *Ipomoea aquatica* Forsk., *I. carica* (Linn.) Sweet, *Limnophila aquatica* (Roxb.) Alston, *Marsilea minuta* Linn., *Najas indica* (Willd.) Cham., *Nelumbo nucifera* Gaertn., *Phyla nodiflora* (Linn.) Green, *Pistia stratiotes* Linn.

FREQUENT: *Aeschynomene aspera* Linn., *A. indica* Linn., *Cyperus kyllinga* Endl., *Dentella repens* (Linn.) J.R. & G. Forst., *Limnophyton obtusifolium* (Linn.) Miq., *Ludwigia hyssopifolia* (G. Don) Exell, *L. perennis* Linn., *Monocharia vaginalis* (Burm. f.) Presl. ex Kunth, *Nymphaea nouchali* Burm., *N. stellata* Willd., *Nymphoides cristatum* (Roxb.) O.K., *N. indicum* (Linn.) O.K. *Ottelia alsinoides* Pers., *Sesbania bispinosa* (Jacq.) Fawcett et Rendle, *Smithia conferta* Sm.

RARE: *Aponogeton natans* (Linn.) Engl. & Krause and *Myriophyllum spathulatum* Blatt. & Hall.

#### Parasites :

Among the parasites the abundant ones were

*Cuscuta reflexa* Roxb., and *Cassytha filiformis* Linn. while *Dendrophthoe falcata* (Linn.) Etting was frequently met with and *Viscum articulatum* Burm. and *V. nepalense* Spreng. were rarely seen.

#### ACKNOWLEDGEMENTS

We are grateful to the Director, Botanical Survey of India for providing facilities and to the Deputy Director, Botanical Survey of India, Western Circle, Poona for encouragement.